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Anita Shah
Year 3, Second Degree Computer Science Program (BCS)
https://anitafrakingshah.github.io/

TECHNICAL SKILLS

Computer Programming Expertise

Programming: ROS, Java, Python, C/C++, Arduino, React-Native, MATLAB, SPSS (Data analysis), Junit, ProbLog, Ergo Coherent, BASH programming

Environment: Arduino IDE, Eclipse, Atom, IntelliJ, Visual Studio, Github, JIRA

Web: HTML5, CSS, JavaScript, Angular 2, AngularJS, Firebase, MySQL

Mechatronics Expertise

Prototyping Skills: Electrical Circuit Analysis, Material Analysis, Sensors and Actuators, Power Electronics and Drivers, Robotics, Pneumatics and Hydraulic Systems, Virtual and Augmented Reality Systems, 3D CAD/Printing, Human-Computer Interfaces, Control Systems, Automation, Networking, Electro-Mechanic Systems, Embedded Systems, Microprocessors & Microcontrollers, Semiconductor Materials and Devices, Transmitters and Wireless Communications

Design Software: ROS, SolidWorks, OpenShape, LabView, Digital VLSI Circuit Design

TECHNICAL WORK EXPERIENCE

Neural Tax Network *Stamford, CT* *Aug 2017-Present*

- Developed POC Q/A program with regards to American tax law.
- Built program demo and launched on Amazon Web Services for universal access
- Programmed the User Interface (including NLP) and programmed a translator for the Ergo software.

Skills: Python, Kivy, ProbLog, Ergo, HTML, CSS, JavaScript, AngularJS, Java Servlets, Eclipse, NLP

Stamford Public Education Foundation, CT *Jun-Aug 2017*

- Developed POC mobile tutoring app for iPhones and Android phones.
- Contributed to Visual Design and Specs/Requirements list
- Implemented design with a Firebase backend and React-Native frontend

Skills: React-Native, Atom, Android Studio

Child and Adult Psychiatric Services *Waterbury, CT* *2014-2016*

- Restructured Network Security with:
  - Private, secure VPN to allow for remote desktop access.
  - Installed and hardwired LAN for secure CC Kiosk
  - BASH programming for automated database and file backups

Skills: OpenVPN, Network Security, LAN Setup, Router Re-engineering, BASH

TECHNICAL PROJECTS

Neural Network for Handwriting Recognition *Jan-March 2018*

- Designed two different 3-layer neural networks for handwriting identification with 96% and 99% accuracy.
- Utilized MNST data sets for training examples.

Skills: Python, C++, Neural Networks, Machine Learning, Cost Function, Gradient Descent Theory

Plantduino *Dec- 2017*

- Re-engineered a wine fridge into a self-maintaining temperature and light-controlled environment for plant growth.
    - Programmed an Arduino Nano with self-designed software
    - Integrated control system for the peltier, cooling fans, and light system with a RTC and humidity/moisture sensors
    - Wired an LED display for user feedback

Skills: Arduino IDE, Power Control Systems with RTC, Sensors, Display Systems, Soldering, Wiring, Circuit Design, LabView, Feedback Systems, Transmitters and Wireless Communications

Shopify Website *Sept-Nov 2017*

Designed a personal shopping website for designer Arianne Elmy based out of New York, including:

- Designed a personal shopping website for fashion designer Arianne Elmy
- Built shopify template including
    - Slideshow add on
    - Filter-by-tag widget for cost reduction
    - Video integration

Skills: Liquid, HTML, JavaScript, Template Design, Shopify IDE

EXTRACURRICULAR ACTIVITIES

Sensory Perception, and Interaction Research Group, UBC *Jan 2018-present*

Designing, prototyping, and engineering various robotic creatures/structures with improved freedom and fluidity of movement and behaviors.

Skills: Sensors and Actuators, Material Analysis, Robotics, Pneumatics, Hydraulics, Silicone Shaping, 3D printing, CAD Design, OnShape, SolidWorks

HackThisSite *Sept 2017-present*

Part of an online community of *legal* hackers that analyze how to break and manipulate systems to fix network security issues.

Skills: Scripting Languages (BASH Shell), Command Line Code, Code Analysis, Memory Leakage Analysis, Hardware Re-engineering

OpenRobotics Club, UBC *Sept 2017-present*

Currently on the Mechanical/Software Design Team for the OpenRobotics ArtBot project.

- Designed a robot for painting 3D objects and 2D canvases (Solidworks)
- Built the frame, arms, and paint brush holder for the robot
- Aided in the circuitry for the motor drivers and lazy susan platform
- Hacked an XBOX Kinect for 3D modelling use

Skills: Electro-Mechanic Systems, Power Electronics and Drivers, Sensors and Actuators, Robotics, Control Systems, Circuit Design, Microcontrollers and Microprocessers, 3D mapping and Virtual Systems

EDUCATION

University of British Columbia *Vancouver, BC* *2017-Present*

Second Degree Computer Science Program (BCS) with a Mechatronics Specialization

Bowdoin College *Brunswick, ME* *2010-2014*

B.A. – Double major in Neuroscience and Anthropology